



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,327	02/13/2004	Dennis Wendell	SUN040316	5224
33438	7590	06/15/2005	EXAMINER	
HAMILTON & TERRILE, LLP			LAM, DAVID	
P.O. BOX 203518			ART UNIT	
AUSTIN, TX 78720			PAPER NUMBER	
			2827	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,327

Applicant(s)

WENDELL, DENNIS

Examiner

David Lam

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-13 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 4-10, 14-20 and 24-30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figures 3A-C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 22-30 are objected to because of the following informalities: In claims 22-30, line 1; "the method" should be change to -- the digital processing system --. Appropriate correction is required.

Specification

3. The abstract of the invention exceeded 150 words. Appropriate correction is required.

4. The disclosure is objected to because of the following informalities: On pages 9-10, lines 22, 4, respectively, "412" should be change to -- 418 --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al. (5,544,105).

Regarding to claims 1-3, Hirose et al. discloses a memory system comprising: a memory cell (MC), first and second bit lines (BIT, /BIT) operable to the memory cell; a write line (WL) operable connected to the memory cell and an equilibration circuit (LB) connected to the first and second bit lines, wherein the equilibration circuit is operable to maintain a predetermined equilibrium condition between the first and second bit lines and wherein the equilibration circuit is controlled by a reference voltage (WEp) and operable to generate an impedance load in the first and second bit lines at a level that allows generation of differential signals in the bit lines; wherein the equilibration circuit comprises first and second pMOS (P41, P42) devices in series with the first and second bit lines, respectively, and a third pMOS device (PE41) connected between the first and second bit lines and wherein the gate of the first, second and third pMOS devices are connected to the reference voltage. *See Figs. 25, 27; Cols. 25-27, 29-30.*

As of claims 21-23, Hirose et al. discloses a digital processing system comprising: a data path module (602); a control module (600); an input/output module (I/O blocks); a memory cell (MC), first and second bit lines (BIT, /BIT) operable to the memory cell; a write line (WL)

Art Unit: 2827

operable connected to the memory cell and an equilibration circuit (LB) connected to the first and second bit lines, wherein the equilibration circuit is operable to maintain a predetermined equilibrium condition between the first and second bit lines and wherein the equilibration circuit is controlled by a reference voltage (WEp) and operable to generate an impedance load in the first and second bit lines at a level that allows generation of differential signals in the bit lines; wherein the equilibration circuit comprises first and second pMOS (P41, P42) devices in series with the first and second bit lines, respectively, and a third pMOS device (PE41) connected between the first and second bit lines and wherein the gate of the first, second and third pMOS devices are connected to the reference voltage. *See Figs. 25, 27, 45-46, 57; Cols. 25-27, 29-30.*

With regard to claims 11-13, they encompass the same scope of invention as to that of claims 1-3, 21-23 except they draft in method format instead of apparatus format. The claims are therefore rejected for the same reason as set forth above.

Allowable Subject Matter

6. Claims 4-10, 14-20, 24-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach the above claimed memory system/method and wherein the first, second and third pMOS devices operable as resistors in the liner region of MOSFET device operation.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Khellah et al. (6,801,463) disclose method and apparatus for leakage compensation with full Vcc precharge.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lam whose telephone number is 571-272-1782. The examiner can normally be reached on 6:00 – 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Lam

June 7, 2005


DAVID LAM
PRIMARY EXAMINER